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REMARKS

Claims 1 through 13 are pending in the application. Claims 14 through 17 were canceled in Applicants' Amendment of November 21, 2003 in response to a restriction requirement, as noted by the Examiner.

Claim 1 has been amended to incorporate the advantageous filler particle size of Claim 5. Consequently, Claim 5 has been cancelled.

Claim 1 has also been amended to recite that the filler material particle size is smaller than the thickness of the individual fiber or timber sawdust product. Support for this amendment can be found in the Application-as-filed, for example on Page 5, lines 4 through 6 in comparison to Page 5, lines 6 through 9 and Page 8, lines 19 through 20.

Claims 1 and 6 through 8, 10 and 11 have also been amended to bring them into conformance with United States practice.

Reexamination and reconsideration of this application, withdrawal of all rejections, and formal notification of the allowability of the pending claims are earnestly solicited in light of the remarks which follow.

Section 112 Amendments

Claims 1 through 13 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

Claim 1 has been amended to provide sufficient antecedent basis and to clarify the scope of the present invention. In that regard, the phrase "hot curing" has been deleted from Claim 1, and the term "individual" has been inserted before "fiber" and "timber sawdust."

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Claims 1, 6, 7, 8, 10 and 11 have been amended to bring them into conformance with United States practice. In specific, the phrase "in particular" has been deleted from Claim 1. The phrase "inter alia" has been deleted from Claim 6. The phrase "such as" has been deleted from Claim 7. The phrase "in particular from 1.5 to 2.5% by weight" has been deleted from Claim 8. Antecedent basis has been provided for the terms "inorganic filler" in Claim 10 and "organic filler" in Claim 11.

Claim 5 has been cancelled, for reasons unrelated to its definiteness.

Based on the foregoing, Applicants respectfully submit that the claims as amended particularly point out and claim numerous advantageous embodiments of Applicants invention. Accordingly, Applicants request withdrawal of this rejection.

The Claimed Invention is Patentable in Light of the Art of Record

Claims 1 through 13 stand rejected over United States Patent No. 4,379,194 to Clarke et al. ("US 194") in view of United States Patent No. 4,251,576 to Osborn et al. ("US 576").

It may be useful to consider the claimed invention before addressing the merits of the rejection. The claims are directed to decorative sheets or moldings for indoor or outdoor applications on buildings. The decorative sheets are made from a monolaterally or bilaterally decorative-layer-laminated, pressed single- or multilap core layer. The core layer is made from wood fibers, cellulose fibers, a mixture of wood fibers and cellulose fibers, or from timber sawdust products that have been impregnated with and surrounded by a resin. The core layer also includes a filler material whose particle size is smaller than the thickness of the individual fibers or timber sawdust products. Beneficially, the particle size of the filler material is in the range of from 5 to 50 microns, as recited in Claim 1 as amended. The fillers may advantageously be either inorganic materials, as recited in Claim 6, or organic materials, as recited in Claim 7.

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In particularly advantageous embodiments, the core layer includes from 15 to 80% by weight of fibers or of timber sawdust products, from 10 to 75% by weight of filler material, and from 10 to 50% by weight of resin, as recited in Claim 2.

The claimed invention provides decorative sheets or moldings exhibiting a highly advantageous balance of a variety of physical properties. Quite unexpectedly, the claimed invention provides decorative sheets or moldings exhibiting improved moisture repellency without excessive sacrifice to the remaining the mechanical properties of the sheet. In particular, Applicants have found that decorative sheets or moldings incorporating suitably sized fillers exhibit reduced water absorption in comparison to unfilled sheets. Applicants have also determined that decorative sheets or moldings incorporating suitably sized inorganic fillers additionally provide reduced volume swelling, higher sheet density and lower heat release in comparison to unfilled sheets, in addition to their reduced water absorption. (The Examiner's attention is kindly directed to the Application-as-filed on Pages 14 through 17, Tables 1 through 4 and Page 17, line 28 – Page 18, line 13). Such a result altogether surprising.

Applicants respectfully submit that the cited references do not teach or suggest the claimed invention.

US 194 is generally directed to decorative laminates. The decorative laminates include a core layer formed from fibrous cellulosic material, filler and resin. The fibrous cellulosic material has an average length of 0.5 mm to 2.5 mm (Col. 5, lines 32-37). The filler is waste material associated with laminate production. (Col. 6, lines 6 – 8). The particle size of the filler may range up to 200 microns, with from about 50 to 150 microns being preferred (Col. 6, lines 6-17). The filler may be present in amounts of up to 20 % by weight. (Col. 5, lines 12 – 17).

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US 194 does not teach or suggest the claimed invention, considered either alone or in combination with the art of record. As noted by the Examiner, US 194 does not disclose the relationship in dimensions between the particulate filler and the fibers. US 194 further does not teach or suggest the recited decorative sheets or moldings including a filler material having a particle size in the range of from 5 to 50 microns. Nor does US 194 teach or suggest the beneficial compositions of Claim 2, incorporating filler material in amounts of up to 75%. And US 194, clearly directed to the incorporation of laminate waste, most certainly does not teach or suggest the advantageous inorganic fillers of Claim 6.

Applicants respectfully submit that the secondary reference does not overcome the deficiencies within US 194. US 576 is primarily directed to the use of specific polymeric dispersants to improve the stiffness, strength and toughness of filled composites. (Col. 1, lines 33 – 39 and Col. 13, lines 12 – 20). The polymeric dispersant is an amphipathic substance containing at least one chain-like component of molecular weight of at least 500. (Col. 6, lines 28 – 31). US 576 discloses the incorporation of filler having a diameter of up to 100 microns. (Col. 5, lines 12 – 14).

US 576 is apparently directed to “high performance” composites, such as composites used as automotive bodies and the like. (Col. 20, lines 20 – 24). In that regard, fibers may also be included within the filled composites of US 576. Fibers suitable for inclusion within US 576 are textile fibers or inorganic fibers or a mixture thereof. (Col. 18, lines 25 – 27). As noted by the Examiner, US 576 indicates that multi-fibrillar fiber strands may have a diameter greater than the particle size. (Col. 18, lines 33 – 37). However, the only disclosure within US 576 as to the comparison of individual fiber diameters versus particle size is that fibers having a diameter “the same as, or less than, that of the [filler] particles” are also suitable for use. (Col. 18, lines 40 – 43).

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The composites of US 576 are also formed using methods generally associated with high performance composites, such as injecting filled resin into molds containing fiber mats. (Col 17, line 62 – Col. 18, line 5). US 576 describes with particularity composites formed by pumping a curable composition into the bottom of a mold containing two layers of chopped strand glass fiber mat and two layers of glass fiber surface veils. Pumping was continued until the dispersion issued from the top of the mold and the mold was sealed and the sample cured. (Col. 31; lines 4 – 29, Example 32). In contrast, the fibrous components of the present invention are advantageously coated with a resin solution or dispersion. (The Examiner's attention is kindly directed to the Application-as-filed on Page 6, lines 10 – 13 and Page 2, lines 16 – 26). Applicants respectfully submit that the particular process used to form reinforced products can greatly affect the resulting product attributes, such as the degree of encapsulation of the reinforcement by the matrix.

Applicants respectfully submit that US 576 does not teach or suggest the claimed invention, whether considered alone or in combination with the art of record. US 576 does not teach or suggest the recited decorative sheets or moldings formed from wood fibers, cellulose fibers or timber sawdust products, and particularly not such sheets or moldings having a filler particle smaller than the thickness of the individual fibers/timber sawdust products. In fact, US 576 teaches away from the claimed invention by disclosing the use of fiber diameters that are larger than the filler particles. US 576 further does not teach or suggest the recited wood fibers, cellulose fibers or timber sawdust products surrounded by binder. And US 576 most certainly does not teach or suggest the recited decorative sheets or moldings incorporating filler materials having a diameter in the range from 5 to 50 microns, as recited in the amended claims.

Applicants respectfully submit that there would have been no motivation to have combined US 194 and US 576. Applicants respectfully submit that merely because the

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references can be combined is not enough, there must still be a suggestion. MPEP 2143.01 (section citing Mills). US 194 is generally directed decorative laminates having higher basis weights and greater thicknesses than conventional laminates. US 576 is directed to improving adhesion within filled composites that optionally incorporate textile or inorganic fibers. Decorative laminates are altogether different fields of endeavor from the filled composites described in US 576. In addition, US 194 and US 576 address totally different issues. Accordingly, Applicants respectfully submit that the Office Action is indulging in impermissible hindsight by merely picking and choosing elements from the prior art while using the instant specification as the guide for that selection process.

However, even if combined (which Applicants submit should not be done) the present invention would not result. US 194 discloses particle sizes of up to 200 microns. US 576 discloses textile or inorganic fibers. US 576 further expressly notes the incorporation of textile or inorganic fibers having diameters larger than the filler particles. Consequently, even if combined the recited decorative sheets or moldings made from wood fibers, cellulose fibers or timber sawdust products including a filler material having a particle size in the range of from 5 to 50 microns would not result. And the combination most certainly would not produce the recited decorative sheets or moldings incorporating filler material whose particle size is smaller than the thickness of such individual fibers or of the timber sawdust products. Nor does the combination teach or suggest the beneficial compositions of Claims 2, reciting decorative sheets or moldings made from wood fibers, cellulose fibers or timber sawdust that further incorporate filler material in amounts of up to 75%.

Accordingly, Applicants respectfully submit that Claims 1 through 13 are patentable in light of US 194 and US 576, considered either alone or in combination.

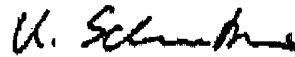
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CONCLUSION

It is respectfully submitted that Applicants have made a significant and important contribution to the art, which is neither disclosed nor suggested in the art. It is believed that all of pending Claims 1 through 13 are now in condition for immediate allowance. It is requested that the Examiner telephone the undersigned if any questions remain to expedite examination of this application.

It is not believed that fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional fees are necessary to allow consideration of this paper, the fees are hereby authorized to be charged to Deposit Account No. 50-2193.

Respectfully submitted,

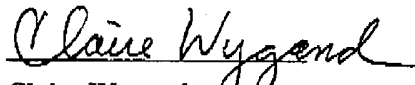


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